at which the outer layer has been severed by cutting edge **140**. The number of steps for which motors **110** and **112** are actuated is determined by the microprocessor in accordance with cable diameter and depth of cut information which is inserted by the operator prior to commencing processing of the cable. As seen in the enlarged portion of FIG. **24**, the outer layer of cable **163** is engaged by blade **138** at a position adjacent the cutting edge indicated by reference numeral **140'**, and the slug (the portion of the outer layer between the cut and the terminal end) is engaged on opposite sides by opposing edges of gripping members. Thus, for stripping purposes, the slug is engaged at three points about its periphery. Current to motor **72** is increased to raise the clamping force exerted on the cable, as previously described. Stepper motor **38** is then actuated, moving lead screw **42** axially rearwardly, together with carriages **22** and **24**. This movement, with cable **163** restrained against axial movement by clamping assembly **50**, removes the slug from the remaining portion of the cable. The slug may fall by gravity, free of any moving parts since the stripping operation is performed at a position axially offset (forwardly) from the orbital drive components. Commercially available covers may be provided on the forward portion of ways **20** to insure that no debris in deposited thereon. The current to motor **72** is decreased to its original level and stepper motors **110** and **112** are actuated to move gripping members **118** and **120** back to their outward positions.

Step 6: Reference FIGS. **13** and **14**. Following the stripping operation, the elements are returned to the home position, ready for movement through another series of steps to cut and strip a section of the next covering layer. Movement of the carriages to their home position is electronically confirmed by optical switches **44, 45** which are actuated by passage of shutters **44'**, **45'**, fixedly mounted to carriages **22** and **24**, respectively, between the beam and detector portions of the switches.

Another option in the programming of the microprocessor, either at the factory or by the operator, is to actuate stepper motors **110** and **112** to move gripping members **118** and **120** into engagement with the outer layer of the cable before actuating motor **26** to perform the cutting operation. This may be particularly advantageous for relatively long lengths of cut when the tendency of the end of the wire to "whip" due to forces imparted by the orbiting blade are greatest. Although the specific example shown herein employs linear stepper motors to move the gripping members, there is a multitude of options for effecting such movement including solenoids, gears, cams, etc. It is also emphasized that the stepper motors shown as providing power to move the elements axially and orbitally of the cable could be replaced by DC motors with the only significant design difference in the controls portion.

What is claimed is:

1. Apparatus for cutting and stripping portions of covering layers from a filamentary workpiece having a central axis, said apparatus comprising:

a) clamping jaws for axially fixing the position of said workpiece;

b) a single blade with an opening surrounded by a circular cutting edge;

c) first motive means for moving said blade to cause said cutting edge to orbit said central axis;

d) a pair of gripping members having spaced, opposed, end portions at substantially equal distances on laterally opposite sides of said workpiece on the axially opposite side of said blade from said clamping jaws;

e) second motive means comprising first and second linear stepper motors respectively connected to said pair of gripping members for moving said gripping members radially of said workpiece between a first position, wherein said end portions are spaced from one another by a distance greater than the diameter of said workpiece, and a second position, wherein said end portions forcibly engage said covering layer; and

f) third motive means for moving said blade and said gripping members axially of said workpiece to strip the severed slug of said coating layer from said workpiece.

2. The apparatus of claim **1** wherein said third motive means comprise a third linear stepper motor.

3. The apparatus of claim **1** wherein said gripping members engage said workpiece at a position closely adjacent said cutting edge.

4. The apparatus of claim **1** wherein said gripping members are metal and are at ground potential.

5. The apparatus of claim **4** and further including means for selectively and individually electronically measuring the distance from each of said end portions to said central axis by connecting said end portions to a conducting pin which is insulated from ground potential.

6. Apparatus for cutting and stripping an outer, covering layer of material from an elongated workpiece having a central axis, said apparatus comprising:

a) a fixed frame;

b) means for supporting said workpiece upon said frame with said central axis extending along a predetermined axis;

c) first and second carriages mounted for reciprocal movement upon said frame in a direction parallel to said predetermined axis;

d) first and second stepper motors having first and second nuts, respectively, rotatable in response to actuation of the associated stepper motor;

e) a single, elongated, lead screw extending through both of said first and second nuts;

f) a single blade with an opening surrounded by a circular cutting edge;

g) motive means for moving said blade to impart orbital movement to said cutting edge about said predetermined axis;

h) means for mounting said first motor upon said frame and said second motor upon said first carriage and for attaching said second motor to said second carriage to effect joint and relative movement, respectively, of said first and second carriages in response to actuation of said first and second motors, respectively.

7. The apparatus of claim **6** and further including a movable member mounted upon said second carriage and connected to said blade for imparting said orbital movement to said cutting edge.

8. The apparatus of claim **7** wherein said motive means comprises a drive motor mounted upon said first carriage for imparting orbital movement to said movable member, the radius of said orbital movement being a function of the distance between said first and second carriages, as adjusted by said relative movement of said first and second carriages.

9. The apparatus of claim **8** wherein said movable member is movable in a plane perpendicular to said predetermined axis.

10. The apparatus of claim **6** wherein both of said first and second carriages are mounted for movement upon single, linear ways fixedly attached to said frame.

11. The apparatus of claim 6 and further including a pair of gripping members jointly movable toward and away from said predetermined axis at a position closely adjacent said cutting edge to engage said covering layer prior to joint movement of said carriages to effect said stripping of said covering layer.

12. Apparatus for cutting and stripping a portion of a covering layer of preselected axial length from a terminal end of a filamentary workpiece, having a first diameter, said apparatus comprising:

a) clamping jaws for engaging said workpiece at a position spaced from said preselected axial length to fix the axial position of said workpiece;

b) blade means movable to cut through said covering layer at said preselected axial length from said terminal end;

c) a guide bushing having a cylindrical passageway with a linear, central axis, forward and rear ends and a second diameter larger than said first diameter by a distance large enough to permit free axial insertion and removal of said cable and small enough to substantially maintain an inserted workpiece coaxial with said linear axis;

d) support means for holding said bushing with said forward end closely adjacent said preselected axial length and with said linear axis in a desired radial position;

e) adjustment means for selectively adjusting said desired position; and

f) a motor for imparting movement to said blade means.

13. Apparatus according to claim 12 wherein said adjustment means comprise first and second members selectively movable to move said bushing, and thus said linear axis, in horizontal and vertical directions, respectively, in a plane perpendicular to said linear axis.

14. Apparatus according to claim 13 wherein said first and second members comprise first and second threaded screws, respectively, engaged in threaded openings in respective support members and rotatable to move axially, thereby moving said linear axis in said horizontal and vertical directions.

15. Apparatus according to claim 14 wherein said support means include a first support member having an opening wherein said bushing is positioned, a second support member wherein said first support member is positioned for vertical, sliding movement, and a third support member upon which said second support member is supported for horizontal, sliding movement in response to rotation of said first screw, said first support member and said bushing being horizontally movable with said second support member.

16. Apparatus according to claim 15 wherein said third support member is an elongated rod passing through an opening in said second support member.

17. Apparatus according to claim 15 wherein said support means further includes a fourth support member movable in response to rotation of said second screw, said first support member, and thus said bushing, being vertically movable in response to movement of said fourth support member.

18. Apparatus according to claim 12 and further including a blade support and first mounting means for attaching said blade means to said blade support, and wherein said support means include second mounting means upon which said bushing is selectively movable between said position wherein said forward end is closely adjacent said preselected axial position, with said bushing essentially blocking direct access to said first mounting means, and an alternate position providing unobstructed access to said first mounting means for removing and replacing said blade means.

19. Apparatus according to claim 18 wherein said support means includes a block upon which said bushing is supported and an elongated, fixed rod extending through a passageway in said block for pivotal movement of said block and said bushing about said rod in moving said bushing between said positions.

20. Apparatus according to claim 19 wherein said support means includes a spring biasing said block toward movement in a first direction upon said rod, and further including a stop defining the limit of said movement in said first direction.

21. Apparatus according to claim 20 wherein said support means further includes a fixed member having an opening, and a shaft fixedly mounted to said second mounting means for removable insertion in said opening, and wherein said stop is mounted upon said shaft for contact with said fixed member to define said limit of movement of said block in said first direction.

22. Apparatus according to claim 21 wherein said stop is a collar slidable upon said shaft and axially fixed by a set screw.

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